AHERA Assessment (cont)

High – in the west baggage handling area.

Potential for Air Erosion: Moderate – The plenum space above the suspended ceiling serves as an open air return to the HVAC system (as such low velocity air moves directly across the deteriorating fireproofing on a daily basis).

Lower potential for air erosion in the west baggage handling area.

Overall Rating: Potential for Future Damage

Contamination Assessment

Dust Samples: Three micro-vacuum settled dust samples and two surface contact samples were collected and analyzed from horizontal surfaces situated directly beneath the Fireproofing. Observations (relative to morphology, matrix and color) made at the time of dust collection confirmed that the dust and debris collected in the samples were from delaminated/dislodged fireproofing applied directly above the vacuumed surface. Analysis of the dust samples indicates extreme to moderate contamination in regards to the fireproofing; based on an asbestos concentration ranging from approximately 20 million to 5.3 billion asbestos fibers per square foot. Refer to table below:

Sample #	Sample Date	General Sample Location	Sample Surface	Asbestos Structures Counted	Asbestos (Conc.) Str/Ft^2	Asbestos (Conc.) Str/Cm^2	Relative Contaminati on Level
1	11/13/2006	Phoenix Airport Terminal 2, mezzanine walkway adj to T2T2020	Top of concrete column	100	$5.26x10^9$	$5.26x10^7$	AP Extreme
2	11/13/2006	Phoenix Airport Terminal 2, FS2 west baggage handling (W end)	Top of fluorescent light fixture	1	$1.99x10^7$	$1.99x10^5$	AP Moderate
3	11/13/2006	Phoenix Airport Terminal 2, lower concourse men's locker rm (T2C1018)	Top of fluorescent light fixture	16	$1.84x10^9$	$1.84x10^7$	FP Extreme

Direct Prep Analysis of the two surface contact samples revealed the presence of free un-encapsulated Chrysotile asbestos fibers in each of the samples. This data confirms the release of respirable fibers from the fireproofing present in the subject building.

Sample #	Sample Date	General Sample Location	Sample Surface	Sample Area	Free Asbestos Fibers Observed
A-1	11/13/2006	Phoenix Airport Terminal 2, mezzanine walkway adj to T2T2020	Top of concrete column	47mm	Yes
B-3	11/13/2006	Phoenix Airport Terminal 2, lower concourse men's locker rm (T2C1018)	Top of fluorescent light fixture	47mm	Yes

Photographs: **PHOENIX AIRPORT TERMINAL 2**

Photo 100. Main Passenger Lobby Upper Mezzanine Office Area - Fireproofing sprayed on ceiling above lay-in suspended ceiling in outside United T2T2020

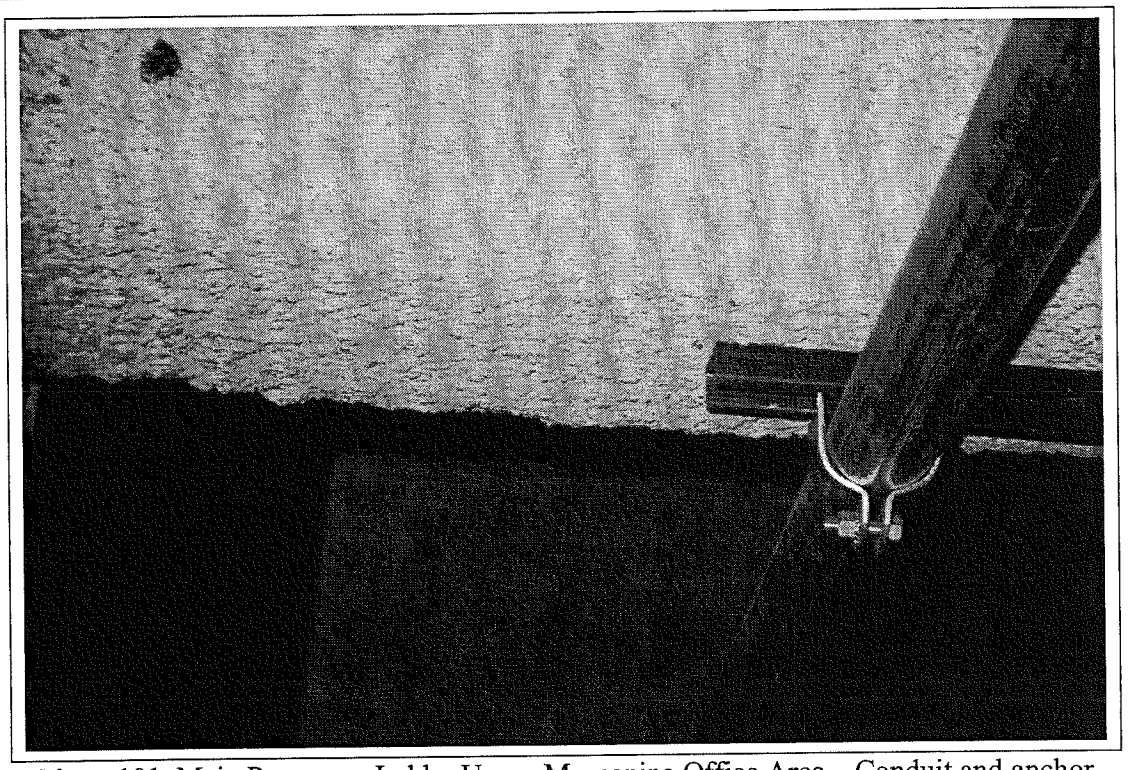

Photo 101. Main Passenger Lobby Upper Mezzanine Office Area – Conduit and anchor bar attached to fireproofed sprayed concrete deck located above suspended ceiling

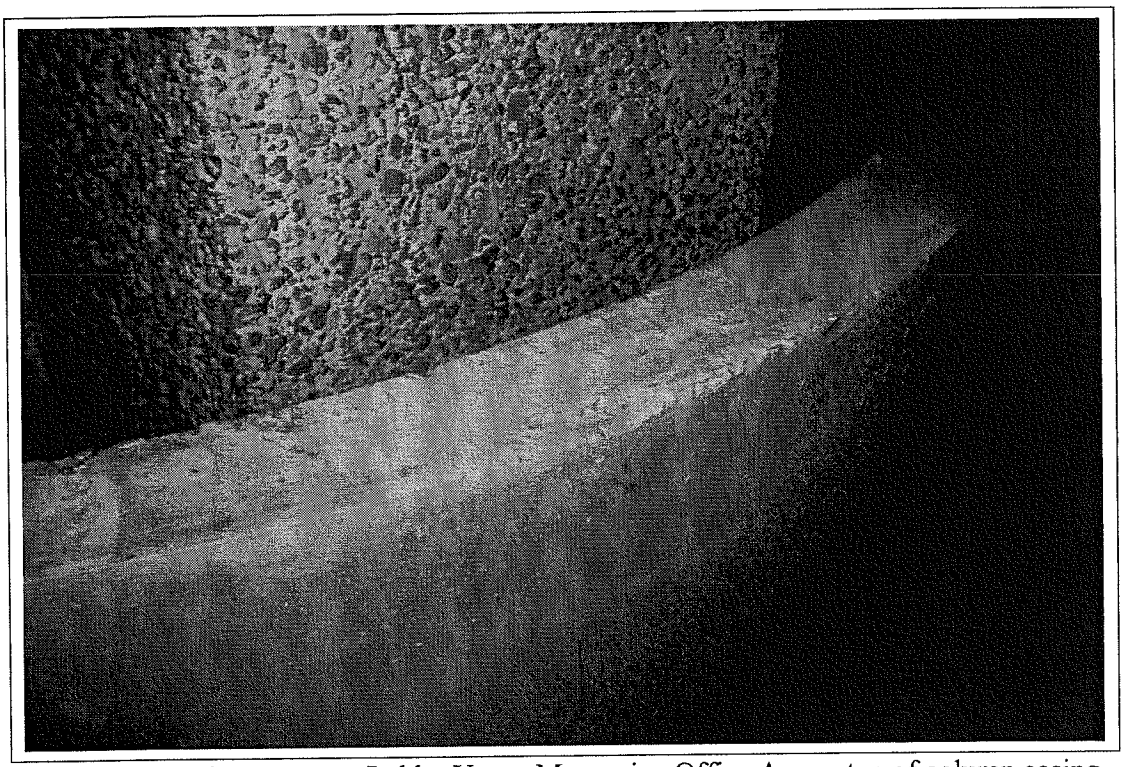

Photo 102. Main Passenger Lobby Upper Mezzanine Office Area – top of column casing situated above fireproofed sprayed deck (location of dust sample #1)

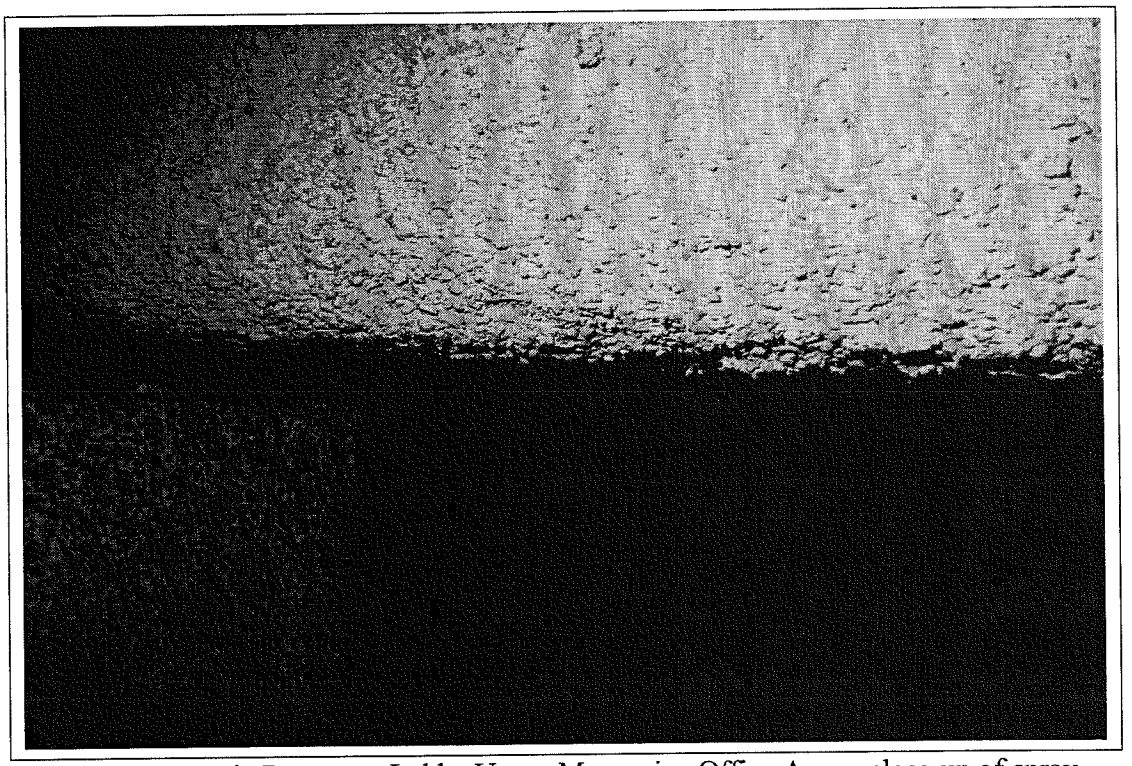

Photo 103. Main Passenger Lobby Upper Mezzanine Office Area – close-up of spray applied fireproofing on concrete deck above suspended ceiling

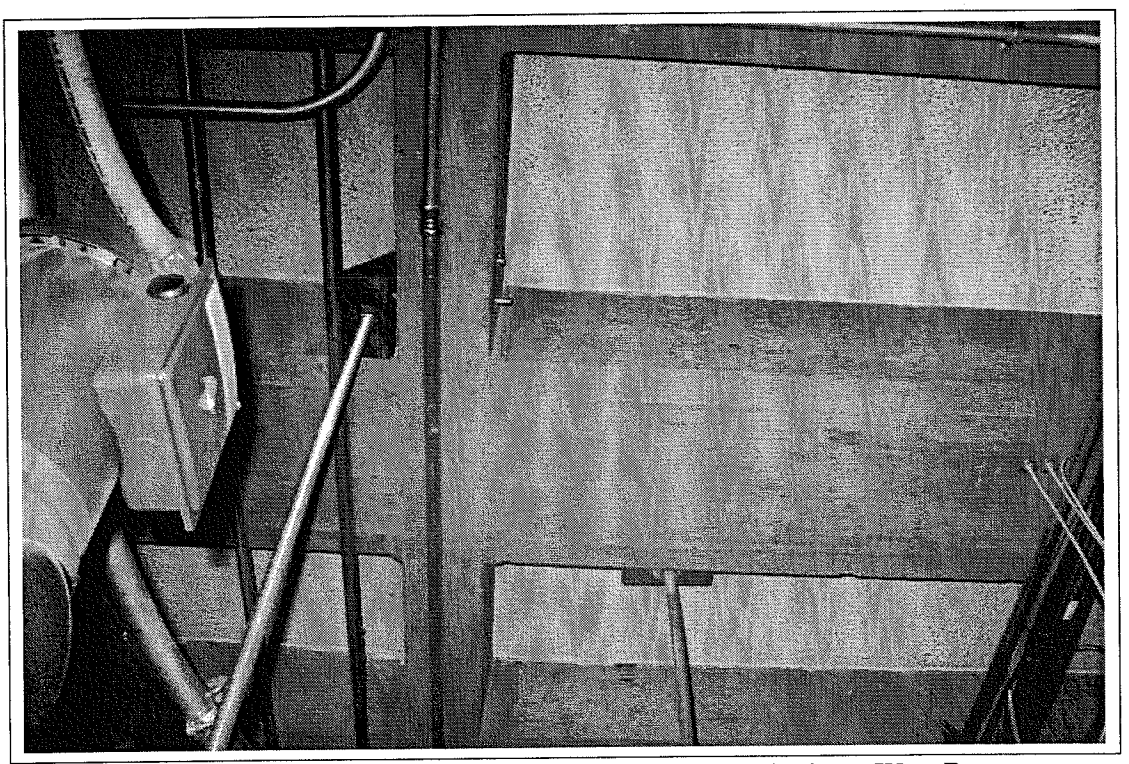

Photo 104. Fireproofing applied to concrete deck channels above West Baggage Handing area (FS2)

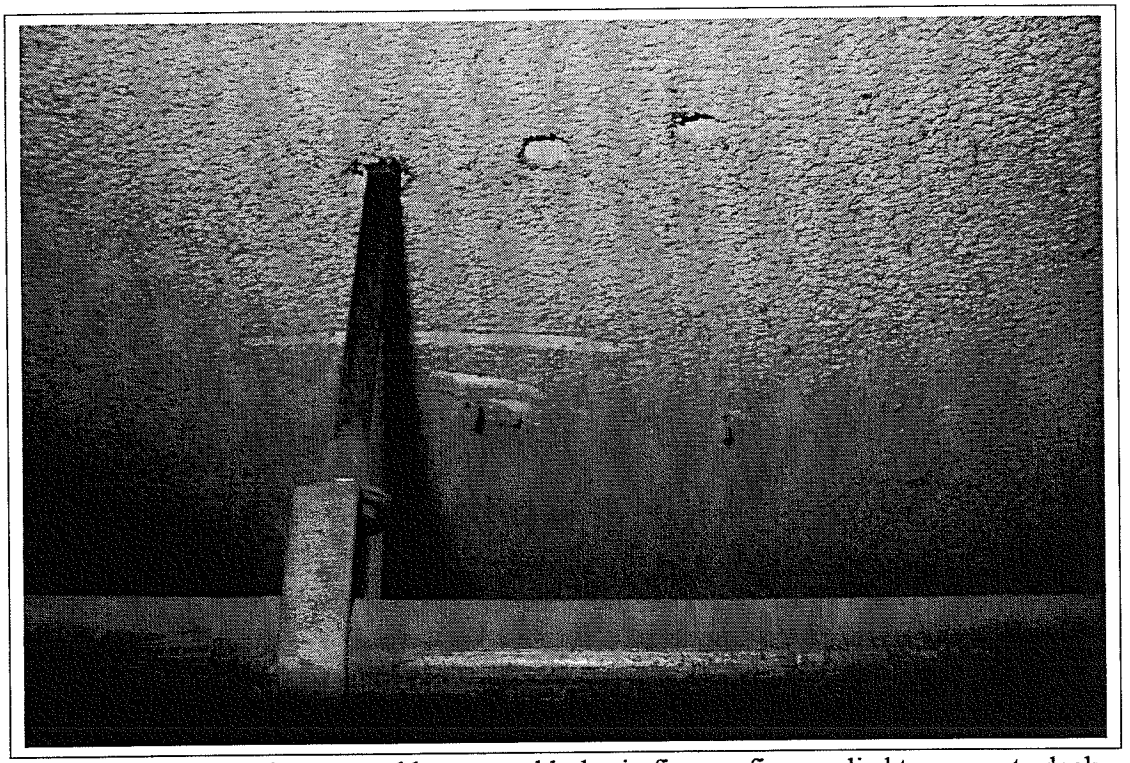

Photo 105. Impact damage and hanger rod holes in fireproofing applied to concrete deck channels above West Baggage Handing area (FS2)

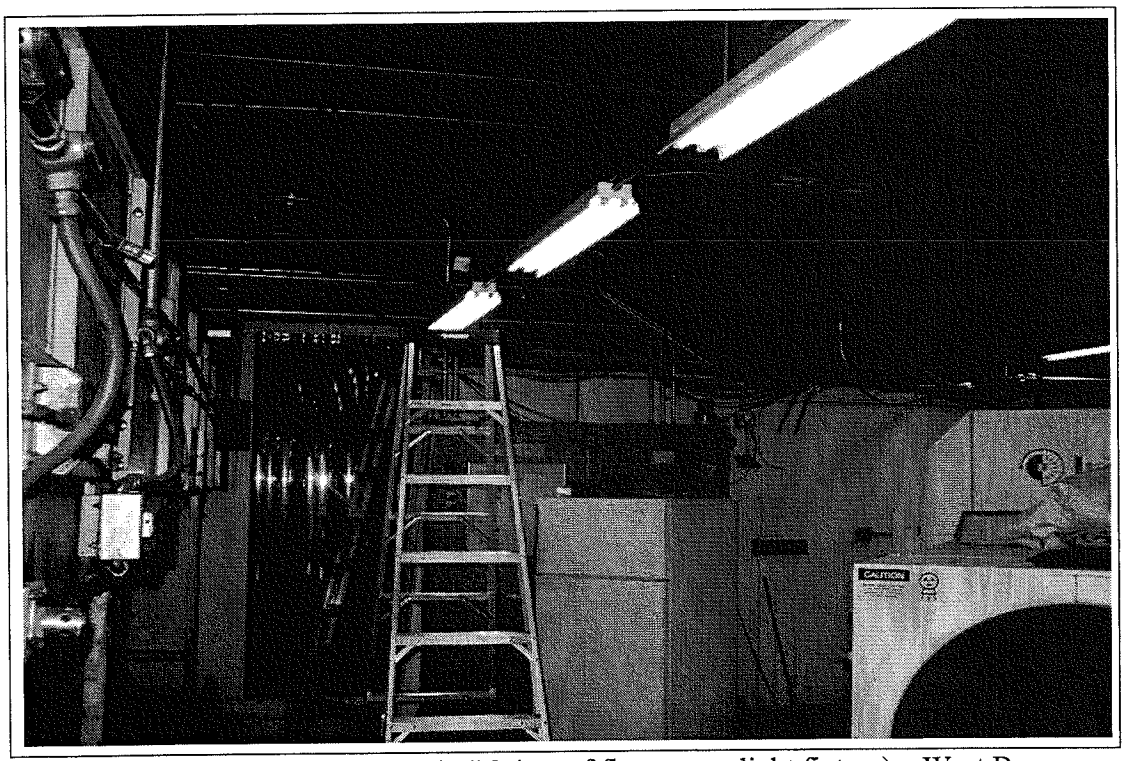

Photo 106. Location of dust sample # 2 (top of fluorescent light fixture) – West Baggage Handling area (FS2)

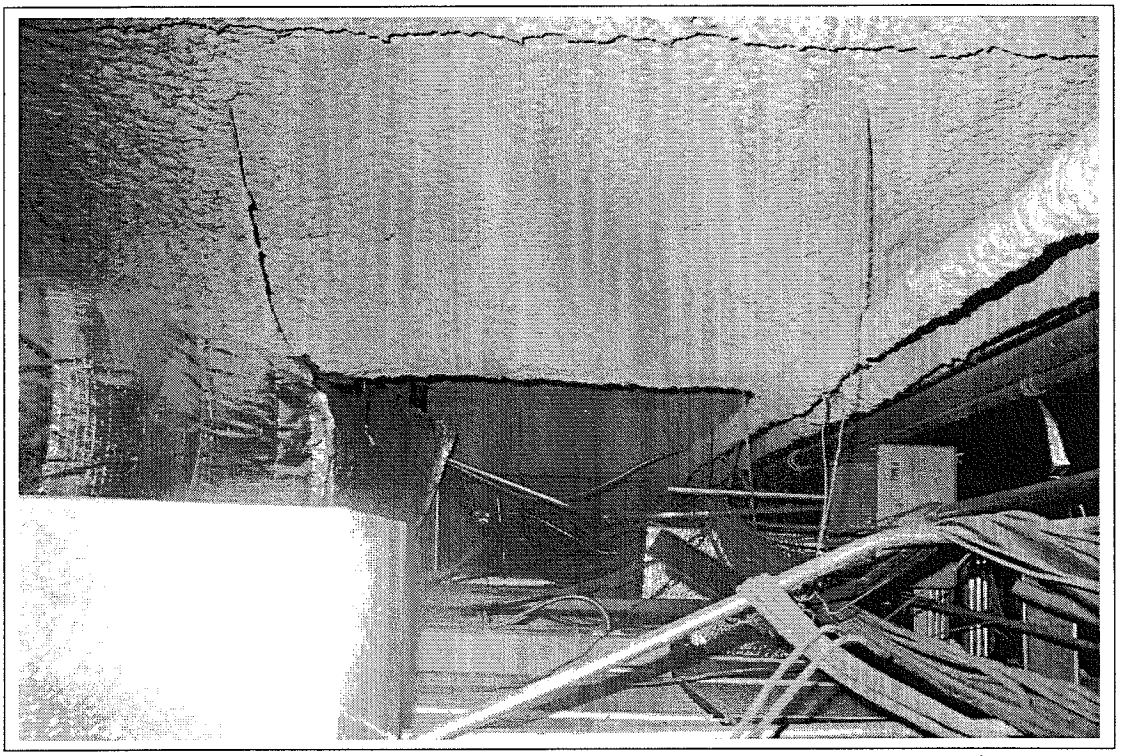

Photo 107. Fireproofing applied decking above suspended ceiling in Men's Locker Room T2C1018 located in the Lower Concourse North

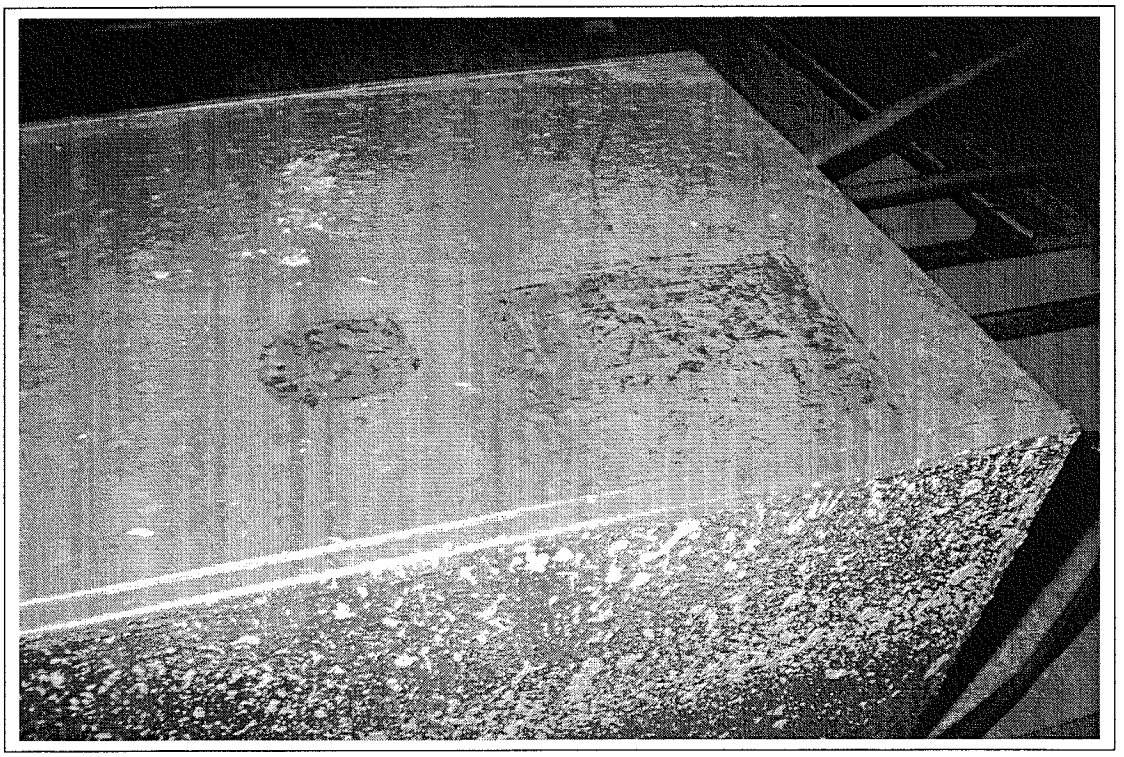

Photo 108. Location of dust sample # 3 and surface contact sample A (top of metal HVAC duct) above suspended ceiling - Men's Locker Rm., Lower Concourse North

ARIZONA HISTORY MUSEUM *aka Arizona Historical Society Building*

Building Location:	949 East 2nd Street Tucson, Arizona
Date of Site Visit:	11/16/06

Field Notes, Background & General Observations

Building Type:	2-story steel frame and concrete museum with central court yard.
Material Type:	Asbestos-Containing Acoustical plaster applied to plaster ceilings that have been coated with a latex-based paint in most areas. Acoustical Plaster present is a vermiculite based material with a taupe colored appearance – identified as a WR Grace Zonolite product.
Material Analysis:	Previous bulk sample analysis by EPA/600/R-93/116 indicates acoustical plaster is asbestos containing
Material Location:	Applied to the original plaster ceiling in the main front galleries of the building. Several of these applications are now located above suspended drop ceilings.
Accessibility:	Varies by application. Accessibility is generally limited to maintenance staff and trades in areas where the acoustical plaster is located above suspended tile ceilings in renovated areas. Accessibility is Moderate – in areas where there are no drop ceilings where the sprayed ceilings are open to the galleries resulting in fallout potential to all building occupants in those areas.
Material Friability:	Friable (generally easily crumbled), painted in some areas
Material Damage:	Obvious delamination observed throughout application (evidenced by fireproofing dust, debris and small pea size chunks deposited on horizontal surfaces below original ceilings (including display cases, tops of partion walls, ceiling tiles and fluorescent light fixtures). Based on my walk-thru of the facility, several renovations have taken place (potentially impacting the acoustical spray finish) including construction of partition walls, installation of drop ceiling systems, electrical conduit and hanging of wires/cables below the deck.

AHERA Assessment

Current Material Condition:	Fair Overall – acoustical spray generally appears to be substantially intact, however fine dust and debris are visible on most horizontal surfaces.
Physical Assessment:	Friable
Damage Assessment:	DAMAGED - Approximately 5 to 8% distributed damage with sporadic areas of localized damage (<25%)
Material Category:	Damaged Friable Surfacing ACM
Potential for Disturbance:	Low to Moderate – in approximately half of the areas where a suspended ceiling serves as a barrier between the acoustical spray and occupied area of the facility. However, maintenance activities are performed above the ceilings on a regular basis which likely disturb both source and delaminated/dislodged acoustical spray.
Freq. of Potential Contact:	Moderate – in most building areas as the acoustical finish is generally sprayed on very tall ceilings (exceeding the arms reach). However, recent renovation activities to a gallery with low ceilings suggest direct impact. In general, maintenance and building occupants are aware of asbestos in the building and know not to purposely disturb it.
Influence of Vibration:	Low – in most areas of the facility.
Potential for Air Erosion:	Moderate – The plenum space above the suspended ceiling serves as an open air return to the new HVAC system (as such low velocity air moves directly across the deteriorating acoustical spray on a daily basis). In other areas diffusers and return grills direct air across the exposed finish.
Overall Rating:	Potential for Future Damage

Contamination Assessment

Dust Samples:	Two micro-vacuum settled dust samples and one surface contact sample were collected and analyzed from horizontal surfaces situated directly beneath the acoustical spray finish. Observations (relative to morphology, matrix and color) made at the time of dust collection confirmed that the dust and debris collected in the samples were from delaminated/dislodged acoustical spray finish applied directly above the vacuumed surface. Analysis of the dust samples indicates extreme contamination based on asbestos